

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend claims 1 and 12, and cancel claims 23-50 without prejudice as follows:

Listing of Claims:

1. (Currently Amended) An interleaving device comprising:

a first interleaving means for performing folding interleaving on first data comprised of plural input packets, in units of a data word or plural consecutive data words; and

a second interleaving means for performing interleaving, in units of a packet, on second data ~~comprised of plural packets generated~~ output by said first interleaving means, ~~in units of the packet~~, said second data comprised of plural packets.
2. (Original) The interleaving device according to claim 1, wherein said second interleaving means replaces a value of beginning data in a first packet of packet-unit interleave.
3. (Original) The interleaving device according to claim 2, wherein said beginning data is a sink byte in a header of a packet that constitutes said first data.
4. (Original) The interleaving device according to claim 1,

wherein said first interleaving means is installed by using first storage means incorporated in a programmable device; and

wherein said second interleaving means is installed by using second storage means externally attached to said programmable device.

5. (Original) The interleaving device according to claim 4, wherein said first storage means is a dual-port random access memory in which inconsecutive addresses are accessed in units of a data word at each clock synchronized with the data word.

6. (Original) The interleaving device according to claim 4, wherein said second storage means is a random access memory fitted to burst transfer of data in units of plural data words.

7. (Original) The interleaving device according to claim 6, wherein said second storage means is a synchronous dynamic random access memory.

8. (Original) The interleaving device according to claim 1, wherein an error correction code is added to each of the packets that constitute said first data.

9. (Original) The interleaving device according to claim 8, wherein each of the packets that constitute said first data is obtained by adding said error correction code to plural transport packets, respectively, that constitute a transport stream obtained by performing compression and encoding on the basis of the MPEG-2 standard on predetermined data.

10. (Original) The interleaving device according to claim 8, wherein said error correction code is a Reed-Solomon code.

11. (Original) The interleaving device according to claim 1, wherein said first interleaving means performs folding interleaving on said first data in units of a byte or plural consecutive bytes.

12. (Currently Amended) An interleaving method comprising:
a first interleaving step of performing folding interleaving on first data comprised of plural input packets, in units of a data word or plural consecutive data words; and
a second interleaving step of performing interleaving, in units of a packet, on second data ~~comprised of plural packets~~ generated by the first interleaving step, said second data comprised of plural packets.

13. (Original) The interleaving method according to claim 12, wherein in said second interleaving step, a value of beginning data in a first packet of packet-unit interleave is replaced.

14. (Original) The interleaving method according to claim 13, wherein said beginning data is a sink byte in a header of a packet that constitutes said first data.

15. (Original) The interleaving method according to claim 12,

wherein said first interleaving step is performed by using first storage means which is incorporated in a programmable device; and

wherein said second interleaving step is performed by using second storage means which is externally attached to the programmable device.

16. (Original) The interleaving method according to claim 15, wherein as said first storage means, a dual-port random access memory in which inconsecutive addresses are accessed in units of a data word at each clock synchronized with the data word is used.

17. (Original) The interleaving method according to claim 15, wherein as said second storage means, a random access memory fitted to burst transfer of data in units of plural data words is used.

18. (Original) The interleaving method according to claim 17, wherein as said second storage means, a synchronous dynamic random access memory is used.

19. (Original) The interleaving method according to claim 12, wherein an error correction code is added to each of the packets that constitute said first data.

20. (Original) The interleaving method according to claim 19, wherein each of the packets that constitute said first data is obtained by adding said error correction code to each of plural transport packets that constitute a transport stream obtained by

performing compression and encoding on the basis of the MPEG-2 standard on predetermined data.

21. (Original) The interleaving method according to claim 19, wherein said error correction code is a Reed-Solomon code.

22. (Original) The interleaving method according to claim 12, wherein in said first interleaving step, folding interleaving is performed on said first data in units of a byte or plural consecutive bytes.

23 – 50 (Cancelled).